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EXAMINER
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ALAM, UZMA

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/729,395

Applicant(s)

GOREN ET AL.

Examiner

Uzma Alam

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-17 and 19-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-17 and 19-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is responsive to the amendment file on November 14, 2005. Claims 2-17, and 19-35 are pending, of which 32-34 are independent claims. Claims 32-34 are amended. Claims 2-17 and 19-35 represent a method of establishing a private network community among a plurality of clients configured to have access to one or more of a set of communication channels.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-17 and 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caronni et al. US Patent No. 6,87,842 in view of Lynch US Patent No. 6,487,600. Caronni teaches the invention as claimed including a private network constructed out of components from a public network (see abstract). Lynch discloses the invention as claimed including a collaborative computing environment (see abstract).

As per claim 32, Caronni teaches a method of establishing a private network community (PNC) among a plurality of clients configured to have access to one or more of a set of communication channels, said method comprising:

A. providing a virtual network generation (VNG) system including a VNG data store, the VNG system accessible via the set of communication channels (the administrative machine is the

Art Unit: 2157

VNG system and is accessible by different methods of communication; column 4, lines 53-67; column 6, lines 1-46, lines 65-67; column 6, lines 1-44, lines 61-67; column 7, lines 21-45; column 8, lines 56-64);

B. storing in the VNG data store PNC information including information identifying said plurality of clients and information identifying a set of PNC network attributes (column 5, lines 1-20; column 6, lines 13-28; column 7, lines 46-62; column 8, lines 10-34, lines 56-63);

D. accessing the VNG system by the plurality of clients and authenticating each of said plurality of clients with the VNG system by comparing information provided by the plurality of clients with said PNC information (column 5, lines 65-67; column 6, lines 1-3; column 6, lines 45-59); and

E. establishing said PNC as a function of the PNC information, including:

a. designating a virtual PNC address for each of said plurality of clients (column 6, lines 13-28; column 7, lines 21-42; column 8, lines 56-64);

b. linking said plurality of clients for communication with the PNC and controlled by the VNG system using the virtual PNC address of each of the plurality of clients and the set of PNC network attributes (the VARP translates addresses so that they are hidden from the private network; column 6, lines 13-28; column 7, lines 21-42); and

c. emulating local area network (LAN) communications among the plurality of clients by the VNG system (connecting as if it was connected as an Ethernet connection; column 4, lines 53-67; column 5, lines 1-32; column 6, lines 45-60).

Caronni does not teach: C. for each of the plurality of client, providing a client module configured to emulate a network interface device, as a virtual network interface card and b.

Art Unit: 2157

linking each of said plurality of client via a corresponding virtual NIC for communication within the PNC.

Lynch teaches C. for each of the plurality of client, providing a client module configured to emulate a network interface device, as a virtual network interface card (software is downloaded from the network friend to the node to establish how the node with communicate with other nodes in the network; column 6, lines 35-67; column 7, lines 1-37; column 10, lines 19-44; column 32, lines 51-67; column 33, lines 1-57; column 35, lines 42-67) and b. linking each of said plurality of client via a corresponding virtual NIC for communication within the PNC (when the nodes have received all the communication rules and software needed to communicate, they directly communicate with each other; column 6, lines 35-67; column 7, lines 1-37; column 33, lines 1-52; column 35, lines 42-67; column 40, lines 15-42).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the implementation of the Metanetwork of Lynch with the Supernet of Caronni. A person of ordinary skill in the art would have been motivated to do this allow the nodes on the network to communicate as if they are directly connected (Caronni column 4, lines 53-67).

As per claim 33, Caronni teaches a virtual network generation (VNG) system configured to establish and manage at least one private network community (PNC) among a plurality of clients configured to have access to one or more of a set of communication channels, said method comprising:

Art Unit: 2157

A. a VNG data store configured for storing PNC information including information identifying at least one of said plurality of clients or of users of said plurality of clients and information identifying a set of PNC network attributes (column 4, lines 53-67; column 5, lines 1-46; column 6, lines 1-46, lines 61-67; column 7, line 21-67; column 8, lines 10-34, lines 56-64);

B. at least one VNG processing device coupled to said VNG data store and configured for establishing said PNC ms a function of the PNC information, the at least one VNG processing device configured for executing a set of VNG system components comprising:

a. an authentication manager for authenticating each of said plurality of clients that have accessed the VNG system by comparing information provided by the plurality of clients with said PNC information (column 5, lines 65-67; column 6, lines 45-59); and

b. a set of communications components comprising:

i. an addressing component for designating a virtual PNC address for each of said plurality of clients (column 4, lines 53-67; column 5, lines 1-32; column 6, lines 13-60; column 7, lines 21-42; column 8, lines 56-64).

Caronni does not teach:

ii. a network emulation component for emulating local area network (LAN) communications among the plurality of clients by the VNG system, including generating a client module for loading at each of the plurality of clients and configured to emulate a network interface device as a virtual network interface card (NIC); and

iii. a linking component for linking said plurality of clients for communication within the PNC and controlled by the VNG system using the virtual PNC address of each of the plurality of clients and the set of PNC network attributes.

Lynch teaches ii. a network emulation component for emulating local area network (LAN) communications among the plurality of clients by the VNG system, including generating a client module for loading at each of the plurality of clients and configured to emulate a network interface device as a virtual network interface card (NIC) (software is downloaded from the network friend to the node to establish how the node with communicate with other nodes in the network; column 6, lines 35-67; column 7, lines 1-37; column 10, lines 19-44; column 32, lines 51-67; column 33, lines 1-57; column 35, lines 42-67) ; and iii. a linking component for linking said plurality of clients for communication within the PNC and controlled by the VNG system using the virtual PNC address of each of the plurality of clients and the set of PNC network attributes (when the nodes have received all the communication rules and software needed to communicate, they directly communicate with each other; column 6, lines 35-67; column 7, lines 1-37; column 33, lines 1-52; column 35, lines 42-67; column 40, lines 15-42).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the implementation of the Metanetwork of Lynch with the Supernet of Caronni. A person of ordinary skill in the art would have been motivated to do this allow the nodes on the network to communicate as if they are directly connected (Caronni column 4, lines 53-67).

Art Unit: 2157

As per claim 34, Caronni teaches a method of establishing a private network community (PNC) for a plurality of clients having access to one or more communication channels, the method comprising:

A. providing a virtual network generation (VNG) system including a VNG data store (the administrative machine is the VNG system and is accessible by different methods of communication; column 4, lines 53-67; column 6, lines 1-46, lines 65-67; column 6, lines 1-44, lines 61-67; column 7, lines 21-45; column 8, lines 56-64);

B. storing in the VNG data store PNC information including information identifying the plurality of clients and information identifying PNC-specific network attributes (column 5, lines 1-20; column 6, lines 13-28; column 7, lines 46-62; column 8, lines 10-34, lines 56-63);

C. accessing the VNG system by clients from the plurality of clients (column 5, lines 65-67; column 6, lines 1-3; column 6, lines 45-59); and

D. selectively linking the accessing clients into the PNC, including enabling communications among the accessing clients controlled by the VNG system in accordance with the PNC network attributes (the VARP translates addresses so that they are hidden from the private network; column 6, lines 13-28; column 7, lines 21-42; column 6, lines 13-28; column 7, lines 21-42; column 8, lines 56-64), including the PNC emulating a private intranet controlled by the VNG system and providing a shared set of intranet resources to the accessing clients (connecting as if it was connected as an Ethernet connection; column 4, lines 53-67; column 5, lines 1-32; column 6, lines 45-60).

Caronni does not teach:



a. for loading at each of the accessing clients, providing a client module configured to emulate a network interface device, as a virtual network interface card (NIC); and enabling communications among the accessing clients via a corresponding virtual NIC.

Lynch teaches a. for loading at each of the accessing clients, providing a client module configured to emulate a network interface device, as a virtual network interface card (NIC) (software is downloaded from the network friend to the node to establish how the node with communicate with other nodes in the network; column 6, lines 35-67; column 7, lines 1-37; column 10, lines 19-44; column 32, lines 51-67; column 33, lines 1-57; column 35, lines 42-67); and enabling communications among the accessing clients via a corresponding virtual NIC (when the nodes have received all the communication rules and software needed to communicate, they directly communicate with each other; column 6, lines 35-67; column 7, lines 1-37; column 33, lines 1-52; column 35, lines 42-67; column 40, lines 15-42).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the implementation of the Metanetwork of Lynch with the Supernet of Caronni. A person of ordinary skill in the art would have been motivated to do this allow the nodes on the network to communicate as if they are directly connected (Caronni column 4, lines 53-67).

As per claim 2, Caronni teaches the method according to claim 32 wherein said plurality of clients is operated by a corresponding plurality of users and said VNG data store includes identification information related to said plurality of users (column 4, lines 49-52; column 5,

Art Unit: 2157

lines 10-15).

As per claim 3, Caronni teaches the method according to claim 32 wherein at least one of said plurality of clients is chosen from a group of network enabled devices comprising: 1) a personal computer; 2) a personal digital assistant; 3) a mobile cellular telephone; 4) a network appliance; 5) a digitally loadable music or video player; 6) an on-line video game; and 7) a home appliance (column 5, lines 1-32).

As per claim 4, Caronni teaches the method according to claim 32 wherein at least one of said plurality of communication channels is chosen from a group comprising: 1) Internet; 2) a cable network; 3) metropolitan area networks (MAN); 4) a power-line network; 5) a telephone line; 6) a satellite link; and 7) wireless networks (column 5, lines 26-32).

As per claim 5 the method according to claim 32 wherein said information identifying each of said plurality of clients includes, for each client:

- 1) an identification attribute, identifying said client (column 9, lines 9-20); and
- 2) a PNC address attribute, identifying a network location of said client (column 9, lines 21-28).

As per claim 6, Caronni teaches the method according to claim 32 wherein said PNC network attributes include: 1) a security management attribute, identifying a network security

Art Unit: 2157

level to which said PNC must adhere (column 6, lines 1-17)

As per claim 7, Caronni teaches the method of claim 32 further comprising: E. selectively disestablishing said PNC in response to a termination event (column 11, lines 44-54).

As per claim 8, Caronni teaches the method according to claim 7 wherein step E includes: 1) disassociating each of said designated addresses from said clients (column 11, lines 44-54).

As per claim 9, Caronni teaches the method according to claim 7 wherein said termination event includes one of more of the following:

1) issuing a termination command by at least one of said clients to said VNG system (column 3, lines 45-52); 2) detecting completion of a predefined set of tasks; 3) detecting a security violation (column 9, lines 29-34); and 4) lapsing of a termination point in time (column 12, lines 16-22).

As per claim 10, Caronni teaches the method according to claim 32 further comprising:

E. modifying said PNC information (column 9, lines 35-41); and

F. modifying said client links as a function of said modified PNC information (column 9, lines 40-60).

As per claim 11, Caronni teaches the method of claim 32, further comprising:

E. sending a packet across said PNC, from a first client to a second client, wherein said sending said packet includes:

- 1) grabbing a packet destined for the virtual network card (column 10, lines 34-55);
- 2) identifying said packet (column 10, lines 56-67);
- 3) wrapping said packet in a wrapper frame by said first client (column 11, lines 1-18);
- 4) transmitting said packet from said first client and receiving said packet by said second client (column 11, lines 21-18);
- 5) unwrapping said packet by said second client (column 11, lines 19-30), and
- 6) injecting said packet into a networking driver interface system of said second client, as if said packet was received by a standard network card of said second client (column 5, lines 33-64; column 11, lines 28-40).

As per claim 12, Caronni teaches the method of claim 11 wherein sub-step 4) includes: a) sending said packet to a VNG server of said VNG system (column 10, lines 34-55); and

b) forwarding said packet by said VNG server to a set of destinations clients, including said second client, associated with said packet (column 11, lines 1-18).

As per claim 13, Caronni teaches the method of claim 12, wherein said first client implements a first protocol and said second client implements a second protocol, and wherein sub-step 3 includes wrapping said packet in a frame compatible with said first protocol and sub-step b) includes: i. unwrapping said packet; and ii. re-wrapping said packet in a frame that is compatible with said second protocol (column 11, lines 19-30)

iii. transmitting said re-wrapped packet to said second client (column 11, lines 28-43).

As per claim 14, Caronni teaches the method of claim 11. Caronni does not teach wherein sub-step 3) includes compressing said message according to said network attributes and sub-step 5) includes decompressing of said message. Lynch teaches compressing and decompressing said message according to network attributes. See column 14, lines 48-51; column 15, lines 8-26; column 29, lines 13-34; column 31, lines 49-59. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the compression and decompression of Lynch with sending the message of Caronni. A person of ordinary skill in the art would have been motivated to do this more efficiently transmit data.

As per claim 15, Caronni teaches the method of claim 11, wherein sub-step 3) includes encrypting said message according to said PNC network attributes and sub-step 5) includes decrypting said message (column 11, lines 1-9, lines 36-42).

As per claim 16, Caronni teaches the method of claim 32. Caronni does not teach wherein said VNG system includes a billing manager, said method further comprising: E. monitoring usage of said PNC by said plurality of clients and generating, as a function of said usage, a corresponding usage bill. Lynch teaches VNG system includes a billing manager, said method further comprising: E. monitoring usage of said PNC by said plurality of devices and generating, as a function of said usage, a corresponding usage bill. See column 14, lines 14-29; column 35, lines 64-67; column 37, lines 16-35; column 39, lines 9-22). It would have been

Art Unit: 2157

obvious to a person of ordinary skill in the art at the time of the invention to combine billing of Lynch with private network of Caronni. A person of ordinary skill in the art would have been motivated to do this to control how much the system is used and to generate revenue.

As per claim 17, Caronni teaches the method of claim 32. Caronni does not teach wherein step B includes: 1) accessing a VNG system Web site. Lynch teaches accessing a web site. See column 14, lines 14-41. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the web site of Lynch with the VNG of Caronni. A person of ordinary skill in the art would have been motivated to do this to have a globally accessible system.

As per claim 19, Caronni teaches a VNG system according to claim 33, further comprising: D. a PNC termination manager, configured to selectively terminate said PNC in response to a termination event (column 11, lines 44-54)

As per claim 20, Caronni teaches a VNG system according to claim 19 wherein said termination manager is configured to disassociate each of said designated addresses from said clients (column 11, lines 44-54).

As per claim 21, Caronni teaches a VNG system according to claim 19 wherein said termination event includes at least one of the following: 1) issuing a termination command by at least one of said clients to said VNG system (column 3, lines 45-52); 2) detecting completion of

Art Unit: 2157

a predefined set of tasks; 3) detecting a security violation (column 9, lines 29-34); and 4) lapsing of a termination point in time (column 12, lines 16-22).

As per claim 22, Caronni teaches a VNG system according to claim 33 wherein said plurality of clients is operated by a corresponding plurality of users and said VNG data store includes identification information related to said plurality of users (column 4, lines 49-52; column 5, lines 10-15).

As per claim 23, Caronni teaches a VNG system according to claim 33 wherein at least one of said plurality of clients is chosen from a group of network enabled devices comprising: 1) a personal computer; 2) a personal digital assistant; 3) a mobile cellular telephone; 4) a network appliance; 5) a digitally loadable music or video player; 6) an on- line video game; and 7) a home appliance (column 5, lines 1-32).

As per claim 24, Caronni teaches a VNG system according to claim 33 wherein at least one of said set of communication channels is chosen from a group comprising: 1) Internet; 2) a cable network; 3) metropolitan area networks (MAN); 4) a power-line network; 5) a telephone line; 6) a satellite link; and 7) wireless networks (column 5, lines 26-32).

As per claim 25, Caronni teaches a VNG system according to claim 33 wherein said client attributes include, for each client: 1) an identification attribute, identifying said client; and 2) a PNC address attribute, identifying a network location of said client (column 9, lines 9-28).

Art Unit: 2157

As per claim 26, Caronni teaches a VNG system according to claim 33. Caronni does not teach further including: D. a front end VNG system Web site. Lynch teaches a front end VNG system Web site. See column 14, lines 14-41. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the web site of Lynch with the VNG of Caronni. A person of ordinary skill in the art would have been motivated to do this to have a globally accessible system.

As per claim 27, Caronni teaches a VNG system according to claim 33 wherein said network attributes include: 1) a security management attribute, identifying a network security level to which said PNC must adhere (column 6, lines 1-17).

As per claim 28, Caronni teaches a VNG system according to claim 33 wherein said PNC manager includes configured to: a) PNC attribute modifier; and b) PNC client link modifier, configured to modify said client links as a function of a set of modified PNC attributes (column 9, lines 35-60).

As per claim 29, Caronni teaches a VNG system according to claim 33, wherein each client in said PNC includes: C. a client module configured to wrap packets to be transmitted in a wrapper frame, wherein said wrapper frame is compatible with at least one of said plurality of communication channels and a corresponding communication protocol (column 11, lines 19-30; column 11, lines 28-43).



As per claim 30, Caronni teaches a VNG system according to claim 33, wherein message traffic within said PNC is encrypted (column 11, lines 1-9; column 11, lines 36-42).

As per claim 31, Caronni teaches a VNG system according to claim 33. Caronni does not teach wherein said VNG processing device further includes 5) a usage monitor configured to monitor usage of said PNC by said plurality of clients and generate corresponding usage information; and 6) a billing manager, configured to generate a corresponding invoice, as a function of said usage information. Lynch teaches VNG system includes a billing manager, said method further comprising: E. monitoring usage of said PNC by said plurality of devices and generating, as a function of said usage, a corresponding usage bill. See column 14, lines 14-29; column 35, lines 64-67; column 37, lines 16-35; column 39, lines 9-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine billing of Lynch with private network of Caronni. A person of ordinary skill in the art would have been motivated to do this to control how much the system is used and to generate revenue.

35. The method of claim 34 wherein the private intranet is a local area network (LAN) (column 4, lines 38-65).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 2-17, and 19-35 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sughiara US Patent No. 6,385,197 teaches one virtual port to represent a corresponding number of group of physical ports.

Tang et al. US Patent No. 6,349,327 teaches enabling users to be aware of what applications other users in the group are using.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

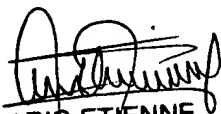
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uzma Alam whose telephone number is (571) 272-3995. The examiner can normally be reached on Monday-Tuesday 5:30 AM - 2:00 PM.

Art Unit: 2157

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Uzma Alam  
ua  
January 31, 2006

  
ARIO ETIENNE  
PRIMARY EXAMINER